

REMARKS

The Office Action dated October 22, 2004, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claim 2 has been canceled without prejudice. New claim 18 has been added. Therefore, claims 1 and 3-18 are pending in the present application.

Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 10-12 and 13-15. New claim 18 has been added to include the limitations of originally filed claim 1 and 13. Therefore, claim 18 is allowable.

Formal Matters

Claims 5-7 and 10-12 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 5 and 10 have been amended to recited --a first and a second resistor elements coupling the differential output signals--, which more distinctly point out and claim the subject matter of the present invention. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1-3 Rejected under 35 U.S.C. §102(b)

Claims 1-3 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,107,882 Gabara et al. (hereinafter "Gabara"). Claim 2 has been canceled without prejudice, and therefore the rejection is now moot. As for the remaining claims, Applicants respectfully traverse the rejection.

Claim 1, as amended recites a buffer circuit device comprising, among other features, a bias voltage adjusting circuit adjusting a bias voltage to be supplied to said

buffer circuit so as to control the common mode voltage of the output signals of said buffer circuit substantially the same as the common mode voltage of the input signals of the next-stage circuit by comparing an output signal of said common mode level generator circuit with an output signal of said common mode voltage detection circuit.

It is respectfully submitted that the prior art fails to disclose or suggest at least the above-mentioned features of the Applicants' invention.

The Office Action characterized Gabara as allegedly disclosing "a bias voltage adjusting circuit (810) for adjusting a bias voltage ..."

Applicants respectfully disagree with the Office Action's characterization of Gabara and respectfully traverse. Gabara merely discloses a common mode voltage of output signals of a translator 110 that is controlled to a specific constant level by comparing the common mode voltage of the output signals of the translator 110 with a reference voltage and the compared result is fed back to the translator 110.

On the other hand, the present invention provides a bias voltage adjusting circuit adjusts a bias voltage to be supplied to a buffer circuit so as to control a common mode voltage of output signals of a buffer circuit substantially the same as a common mode voltage of input signals of a next-stage circuit by comparing an output signal of a common mode level generator circuit with an output signal of a common mode voltage detection circuit. Specifically, the common mode voltage of the output signals of the buffer circuit of the present invention is controlled so as to be substantially the same as the common mode voltage of the input signals of the next-stage circuit, and therefore, a high-speed signal transmission can be realized without causing a reduction of input sensitivity of the next-stage circuit.

Therefore, Applicants submit that Gabara fails to disclose each and every element recited in claim 1 of the present application.

Moreover, to qualify as prior art under 35 U.S.C. §102, a single prior art reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, Gabara fails to disclose or suggest each and every feature of claim 1. Accordingly, Applicants respectfully submit that claim 1 is not anticipated by nor rendered obvious by Gabara. Therefore, Applicants respectfully submit that claim 1 is allowable.

As claim 3 depends from claim 1, Applicants submit that claim 3 incorporates the patentable aspects therein, and is therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1 and 8-9 are Rejected under 35 U.S.C. §102(e)

Claims 1 and 8-9 were rejected under 35 U.S.C. §102(e) as being anticipated by Yamamoto (U.S. Patent No. 6,665,655, "Yamamoto"). Applicants respectfully traverse the rejection and submit that each of these claims recites subject matter that is neither disclosed nor suggested by the cited prior art.

In making the rejection, the Office Action characterized Yamamoto as allegedly disclosing "a bias voltage adjusting circuit (comparator) for adjusting a bias voltage to be supplied to said buffer circuit by comparing an output signal of said common mode level generator circuit with an output signal of said common mode voltage detection circuit."

Applicants respectfully disagree with the Office Action's characterization of Gabara and respectfully traverse. Applicants submit that Yamamoto fails to disclose or suggest each and every element recited in claim 1 of the present application. In particular, it is submitted that Yamamoto does not refer to a "comparator" in its entire disclosure. Therefore, Applicants submit that Yamamoto fails to disclose each and every element recited in claim 1 of the present application. Applicants respectfully submit that claim 1 is allowable.

As claims 8 and 9 depend from claim 1, Applicants submit that each of these claims incorporates the patentable aspects therein, and is therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 4-7, 16 and 17 Rejected under 35 U.S.C. §103(a)

Claims 4-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gabara in view of Tichauer (U.S. Patent No. 6,784,744). In addition, claims 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gabara in view of Jin et al. (U.S. Patent No. 5,146,152, hereinafter "Jin"). Applicants respectfully traverse the rejections and submit that each of claims 4-7, 16 and 17 recites subject matter that is neither disclosed nor suggested by the cited prior art.

As claims 4-7, 16 and 17 depend from claim 1, Applicants submit that each of these claims incorporates the patentable aspects therein, and is therefore allowable for at least the reasons set forth above with respect to the independent claims, as well as for the additional subject matter recited therein.

Conclusion

In view of the above, Applicants submit that the present application is in condition for allowance and request the timely issuance of a Notice of Allowance.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time.

Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300.

Respectfully submitted,



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